

REMARKS

Reconsideration and allowance of this application, as amended, is respectfully requested.

This amendment is in response to the Office Action of December 8, 2004. Appreciation is expressed to the Examiner for the indication of allowable subject matter in claim 19.

By the present amendment, the Title has been amended to be more descriptive of the claimed invention, as requested in the Office Action. Therefore, removal of the objection to the Specification on this ground is respectfully requested.

Also by the present Amendment, claim 19 has been amended to clarify the antecedent basis thereof. Therefore, removal of the objection to claim 19 is also respectfully requested.

In addition, independent claim 15 and dependent claims 18 and 22 have also been amended for purposes of clarifying the invention, as will be discussed below.

Briefly, the present invention is directed to an improved arrangement for controlling the power status of a functional circuit block with a power status control circuit. In particular, the present invention uses a prediction circuit (such as indicated, for example, by the letter P in Fig. 1 and P1 in Fig. 2) to control a power status circuit (e.g., indicated by the letter D in Fig. 1 and D1 in Fig. 2) which, in turn, controls the power level of a functional circuit (e.g., indicated by the letter K in Fig. 1 and KB in Fig. 2). More specifically, as shown in Fig. 1 and 2, both the prediction circuit P and the functional circuit K receive the same input signal which can be either an instruction or data.

An important aspect of the present invention is that, because the prediction circuit receives the same instruction or data which is inputted into the functional circuit block, no additional instructions or data are necessary from other computation devices for the prediction circuit to control the power status control circuit which correspondingly controls the power status of the functional circuit. In other words, the prediction circuit can operate independently without the aid of other computation devices. This is discussed, for example, in the Specification, on page 10, lines 14-24.

Reconsideration and removal of the various rejections of claims 15-18 and 20-28 based on the primary reference to Datar (USP 6,625,740) in view of the various secondary references to Dean, Ranta, Katahoka, Brower, Mohamed and Takayama is respectfully requested. By the present amendment, independent claim 15 has been amended to clearly define the feature that the prediction circuit controls the power status control circuit, independently of other computation device, based on the instruction or data which is inputted to both the function circuit and the prediction circuit. It is respectfully submitted that this clearly distinguishes over the primary reference to Datar, as will be discussed below, whether considered alone or in combination with other cited prior art.

In particular, the primary reference to Datar teaches first and second embodiments in its respective Figures 3 and 4. In Fig. 3, control is carried out for functional circuits using power control code state machines 301a and 301b in the respective processors 201a and 201b. Fig. 4, on the other hand, teaches replacing the power control code state machines 301a and 301b with a central power control

block 401 (as discussed, for example, in column 1, lines 7 et seq. of the Datar reference).

As discussed on column 5, lines 57-62 and column 6, lines 4 et seq., Datar requires a compiler, separate from either the power control code state machines or the central power control block, in order to implement its control operations. Specifically, as noted in the above stated sections of columns 5 and 6, for the circuit blocks to be turned on and off, a compiler must first generate a dynamic power control code. Thus, the power control code state machines 301a and 301b and the central power control block 401 do not operate independently of other computation devices, as required by amended claim 15. Instead, clearly an additional compiler is required in Datar, with the resulting firmware from the outside compiler being stored in the memory 201 shown in both Figs. 3 and 4.

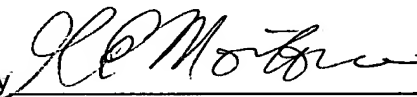
In light of this shortcoming of the primary reference to Datar to teach or suggest the features of the prediction circuit being inputted with the same instruction or data as the functional circuit, to thereby operate to control the power status independently of other computation devices, it is respectfully submitted that amended claim 15 and its dependent claims clearly define a separate invention from that of Datar. Similarly, none of the cited secondary references, including the references to Dean, Ranta, Katahoka, Brower, Mohamed and Takayama relied on in

the Office Action, serve to make up for this shortcoming in Datar. Therefore, reconsideration and allowance of the amended independent claim 15 and the various dependent claims in this case is respectfully requested.

If the Examiner believes that there are any other points which may be clarified or otherwise disposed of either by telephone discussion or by personal interview, the Examiner is invited to contact Applicants' undersigned attorney at the number indicated below.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Antonelli, Terry, Stout & Kraus, LLP Deposit Account No. 01-2135 (Docket No. 520.40524X00), and please credit any excess fees to such Deposit Account.

Respectfully submitted,
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By 

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